Molded SMD Power Inductors – MWSC Series

Operating Temp. : -40℃~+125℃ (Including self-heating)

FEATURES

- Metal material for large current and low loss
- Closed magnetic circuit design reduces leakage flux
- Halogen free, RoSH compliant

APPLICATIONS

- Server, desktop computer, notebook
- Graphics, memory
- Industrial equipment, telecom base station

PRODUCT IDENTIFICATION

MWSC	0624	H	1R0	M	T	□□□
①	②	③	④	⑤	⑥	⑦

①	Type
MWSC	Molded SMD Power Inductor

④	Nominal Inductance
Example	Nominal Value
R82	0.82μH
1R0	1.0μH

②	(L×W×H) [mm] External Dimensions(L×W×H) [mm]
0624	6.6×7.1×2.4
0630	6.6×7.1×3.0

⑤	Inductance Tolerance
M	±20%

⑥	Packing
T	Tape & Reel

③	Feature Core
H	H Type Material

⑦	Design Core
□□□	Design Core
Standard Product is Blank	

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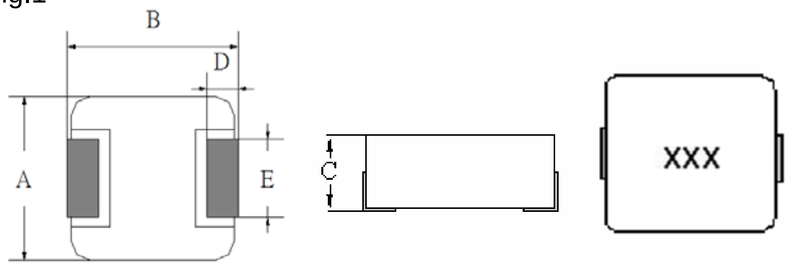
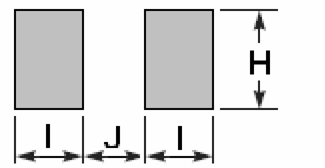
SHAPE AND DIMENSIONS

Fig.1





Unit:mm

Series	A	B	C Max.	D	E	I Typ.	J Typ.	H Typ.
MWSC0624	6.6±0.3	7.1±0.4	2.4	1.6±0.3	3.0±0.3	2.2.	3.7	3.5
MWSC0630	6.6±0.3	7.1±0.4	3.0	1.6±0.3	3.0±0.3	2.2	3.7	3.5

SPECIFICATIONS

MWSC0624 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	@100KH0,1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		A		A	
Symbol	L	DCR		Isat		Irms	
MWSC0624HR22MT	0.22±20%	3.0	2.5	28	34	18	21
MWSC0624H1R5MT	1.5±20%	17.5	15.5	12	15	7.8	9.0
MWSC0624H100MT	10±20%	101	91	4.0	5.0	2.7	3.1

MWSC0630 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	
	@100KH0,1V	Max.	Typ.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ		A		A	
Symbol	L	DCR		Isat		Irms	
MWSC0630HR22MT	0.22±20%	3.0	2.5	27.0	34.0	21.0	24.0
MWSC0630HR33MT	0.33±20%	3.5	3.2	25.0	31.0	18.0	21.0
MWSC0630HR47MT	0.47±20%	4.1	3.7	21.0	26.0	16.0	18.0
MWSC0630HR68MT	0.68±20%	5.3	4.8	16.0	19.0	14.0	16.0
MWSC0630HR82MT	0.82±20%	5.5	5.0	16.0	19.0	12.2	14.0
MWSC0630H1R0MT	1.0±20%	7.8	6.8	15.0	18.0	11.3	13.0
MWSC0630H1R5MT	1.5±20%	11	10	12.6	15.0	9.6	11.0
MWSC0630H2R2MT	2.2±20%	17.5	15.7	11.8	14.2	8.3	9.5
MWSC0630H2R2MTY	2.2±20%	15	13.6	10.5	13.0	8.3	9.5
MWSC0630H3R3MT	3.3±20%	21	19	7.7	9.3	7.4	8.5
MWSC0630H4R7MT	4.7±20%	28	25.8	6.0	7.1	5.2	6.0
MWSC0630H6R8MT	6.8±20%	53	48	6.4	7.6	4.3	5.0
MWSC0630H8R2MT	8.2±20%	68	62	5.8	7.0	3.5	4.0
MWSC0630H100MT	10±20%	68	62	5.1	6.1	3.5	4.0
MWSC0630H220MT	22±20%	150	140	3.4	4.0	2.0	2.3

※1 : Rated current: Isat (max.) or Irms(max.), whichever is smaller;

※2 : Saturation Current: *Max. Value*, DC current at which the inductance drops less than 30% from its value without current;

Typ. Value, DC current at which the inductance drops 30% from its value without current;

※3 : Irms: DC current that causes the temperature rise (ΔT) from 20°C ambient.

For Max. *Value*, ΔT＜40℃; for *Typ. Value*, ΔT is approximate 40℃.

The part temperature (ambient + temp. rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

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